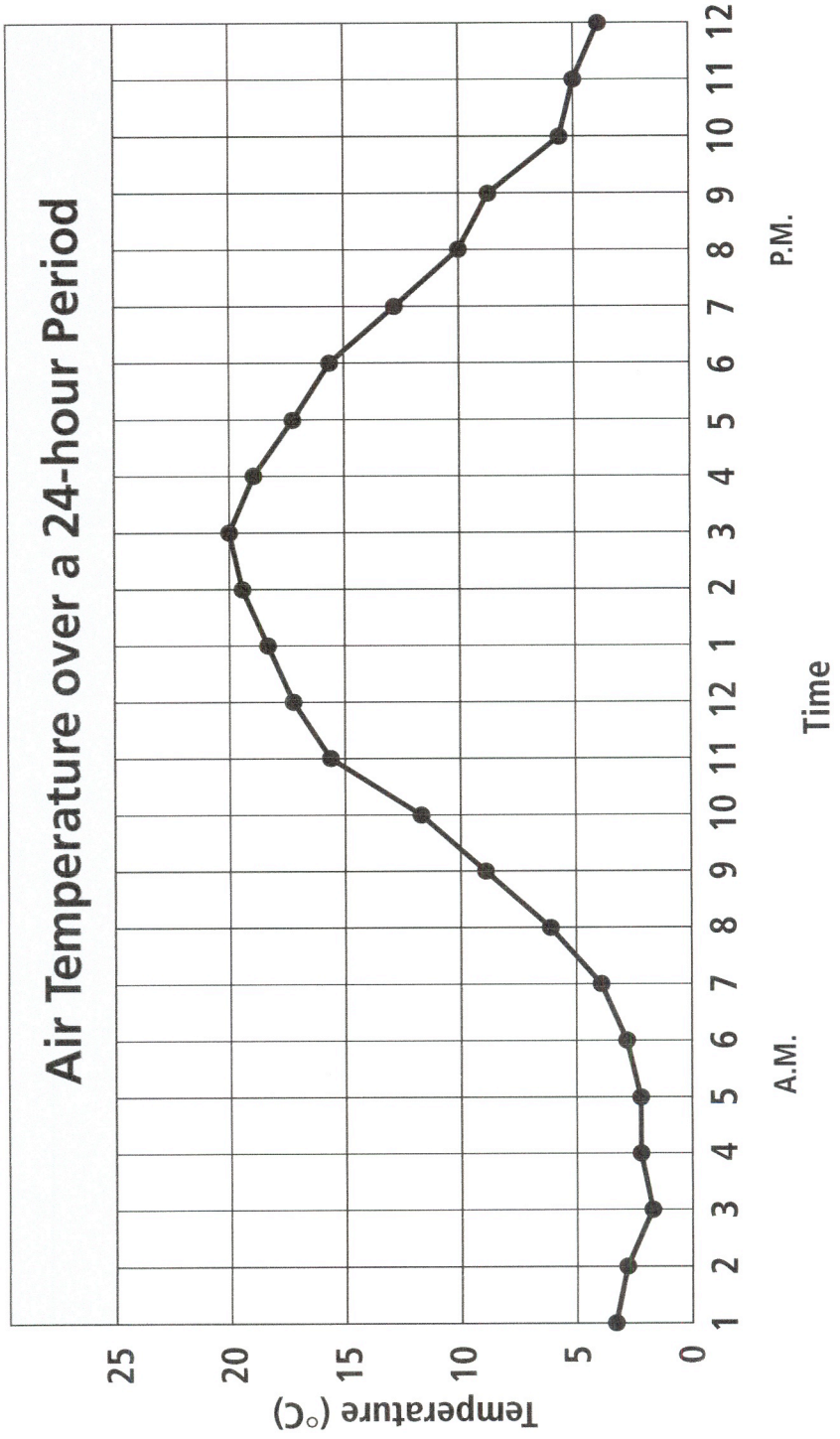
Use with Chapter 1
Section 1.3

Graphs



Name _____ Class _____ Date _____

WORKSHEET 3 TEACHING TRANSPARENCY

Use with Chapter 1
Section 1.3

Graphs

1. What type of graph is shown?

_____

2. What is the independent variable?

_____

3. What is the dependent variable?

_____

4. What was the temperature at 8:00 P.M.?

_____

5. Approximately when was the temperature 5°C?

_____

6. At what time of day was the temperature the highest?

_____

7. At what time of day was the temperature the lowest?

_____

8. What is the temperature when the crossover from A.M. to P.M. occurs?

_____

9. Describe the change in temperature during the period represented in the graph.

_____

_____

10. How does the temperature at the end of the 24-hour period compare to the temperature at the beginning of the period?

_____

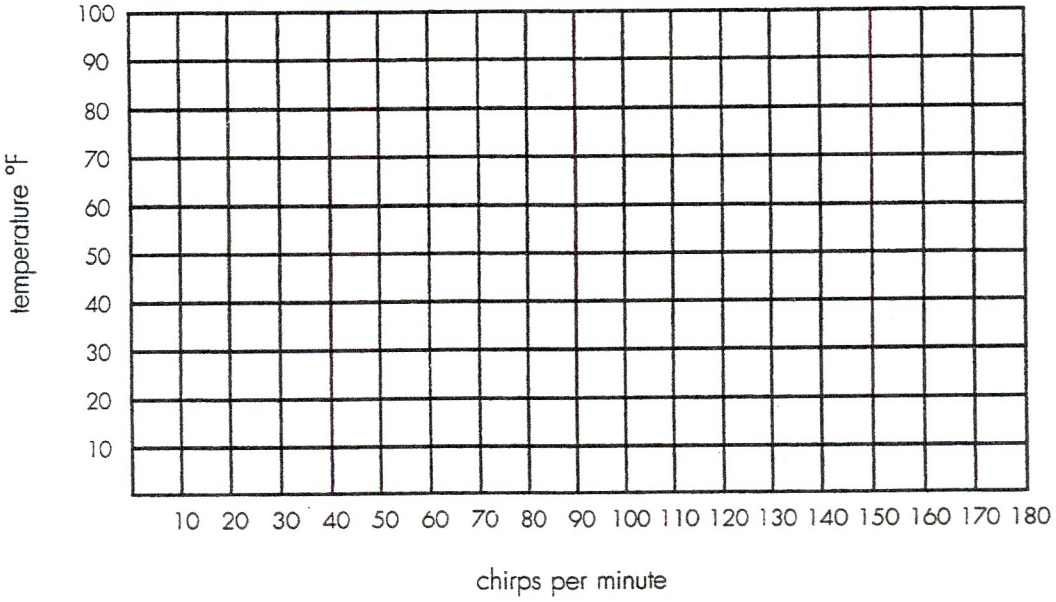
_____

C Cricket Temperature

The number of chirps per minute that some crickets make is related to the temperature. The relationship is very close to being a linear relationship.

When the crickets chirped 172 times a minute, the temperature was 80°F.
Likewise, when the crickets chirped 124 times a minute, the temperature was 68°F.

Plot the information on the graph below. Draw a straight line through the two points.



From the graph, find the following:

1. the temperature when the crickets chirp 100 times/min. _____
2. the temperature when the crickets chirp 160 times/min. _____
3. the temperature when the crickets chirp 60 times/min. _____
4. the number of chirps/min. when the temperature is 60°F _____
5. the number of chirps/min. when the temperature is 70°F _____
6. the number of chirps/min. when the temperature is 50°F _____

Write an equation that shows the relationship between the chirps per minute and the temperature.

SECTION 1.3 *Communicating in Science*

In your textbook, read about communicating results.
Answer the following questions.

1. Give three reasons why communicating scientific data is important to others.

_____

_____

_____

2. Describe two uses for the lab reports you write after doing an activity or experiment.

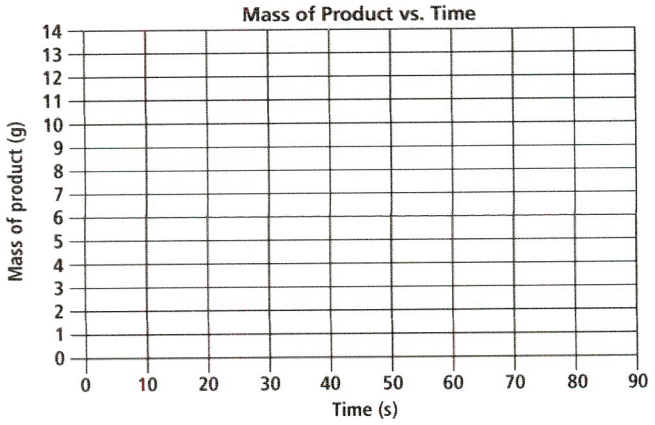
_____

_____

The table below shows the results of an experiment. Use the data in the table to answer the following questions.

Time (s)	10	20	30	40	50	60	70	80
Mass of product (g)	1.5	3.2	4.3	6.0	7.7	9.2	10.4	12.1

3. On the grid below, plot the mass of product versus time. Connect the data points with a line.



4. What is the independent variable in this experiment?

_____

5. What is the dependent variable in this experiment?

_____

6. Describe the relationship between the dependent and independent variables in this experiment.

_____